Maximum Permissible Exposure Evaluation

FCC ID: 2AN9B-ZLD-44USA-W

1. Client Information

Applicant	:	ShenZhen Ming Yi Heng Industrial Co.,LTD
Addres	:	9th floor, Baoke Industrial Area, Building A,Dalang Conmunity,Long Hua New District,ShenZhen, China
Manufacturer	:	Dongguan Mingone Electronics Co.,Ltd
Address	:	2nd Floor,8 Building,Kegu Industrial Area，No.6 Zhongnan South Road,Shangsha Community,Chang'an Town,Dongguan, China

1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, China
Tel: +86 75526509301 Fax: +86 75526509195

2. General Description of EUT

EUT Name	:	Smart Power Strip	
Models No.	:	ZLD-44USA-W,ZLD-34USA-W,ZLD-64USA-W	
Model Difference	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is model name for commercial.	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz
		Max Output Power:	WIFI: 14.73 dBm
		Antenna Gain:	3dBi PCB Antenna
Power Supply	:	AC Voltage supplied	
Power Rating	:	Input: AC 90~125V, 50/60Hz Output: 16 A 2000 W (Max) 10A Max per port USB Oupout: 5V/4A max (2.4A Max per port)	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

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MPE Calculations for WIFI

1. Antenna Gain:

PCB Antenna: 3dBi.

2. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=(PG)/4\pi R^2$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

Mode	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/cm^2) [S]
802.11b	14.73	14±1	15	3	20	0.01255
802.11g	13.68	14±1	15	3	20	0.01255
802.11n (HT20)	13.65	14±1	15	3	20	0.01255

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/cm^2)
300-1,500	F/1500
1,500-100,000	1.0

For 802.11b/g/n:2412~2462 MHz
MPE limit S: $1mW/cm^2$
The MPE is calculated as ***$0.01255mW/cm^2 < limit\ 1mW/cm^2$***. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

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